

REMARKS

Claim 24 is amended to depend from claim 16.

New claims 35-37 find support throughout the specification.

No new matter is added.

As an initial matter, Applicants respectfully request acknowledgement of the certified English translation of the priority document, submitted on November 20, 2009.

In view of the following remarks, reconsideration is respectfully requested.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 24 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for failing to particularly point and distinctly claim the subject matter which Applicants claim as the invention, namely for depending from a cancelled claim. Applicants submit that the rejection is moot in view of the amendment to claim 24.

Rejection Under 35 U.S.C. § 103(a)

Claims 16-22 and 24-34 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Blanchard et al., International Application No WO 01/10545 ("Blanchard") in view of Wakefield, U.S. Patent Publication No. 2005/0066571 ("Wakefield"). The rejection is respectfully traversed.

Arguments

The rejection admits that "Blanchard does not specifically teach antioxidants," but contends that "the diluents of aromatic solvents and alcohols are equivalent to antioxidants" and that the "burden is upon Applicants to show evidence otherwise." Office action, pp. 3-4. Applicants respectfully submit that no legally sufficient basis

exists for such a characterization of Blanchard, and further that no basis exists to shift the burden to Applicants.

Applicants interpret the rejection to contend that the diluents of aromatic solvents and alcohols in Blanchard inherently include antioxidants. However, for a rejection based on inherency, the Examiner must first provide a rationale or evidence tending to show inherency. MPEP 2111.04.IV. No such rationale or evidence has been provided. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). No evidence of record indicates that the diluents of aromatic solvents and alcohols of Blanchard necessarily include antioxidants.

Blanchard discloses colloidal dispersions of rare earth. There is no disclosure in Blanchard of the addition of an antioxidant agent.

Wakefield does not describe nor suggest a dispersion comprising an antioxidant, but merely discloses the presence of an antioxidant in a fuel. Although Wakefield desires stability in a dispersion, Wakefield fails to recognize or suggest that the addition of the claimed antioxidant agent to the dispersion, and not the fuel, will improve the stability of the dispersion.

Wakefield does not teach dispersions comprising an antioxidant, and therefore the combination of Blanchard and Wakefield would not result in the claimed invention.

Superior and Unexpected Results

There is no teaching in the art as applied that the presence of the antioxidant in the dispersion enhances the stability of the particles in the fuel, and the inventors found that the claimed dispersions exhibited superior properties.

Evidence of unobvious or unexpected advantageous properties, such as superiority in a property the claimed compound shares with the prior art, can rebut *prima facie* obviousness. MPEP 716.02(a).II. The PTO must consider comparative data in the specification in determining whether the claimed invention is patentable. *In re Soni*, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995).

Here, it was found that the addition of antioxidant improved the ability of cerium to remain in a condition of colloidal dispersion as compared to comparative examples without antioxidant. These superior and unexpected results are cited in the present specification. See Specification, Example 1.

For all the above reasons, Applicants respectfully request reconsideration and withdrawal of the rejection.

Separate Patentability of Claim 25

Claim 25 recites, *inter alia*, particles in the form of aggregates whose d_{80} , advantageously d_{90} , is not more than 5 nanometers. Blanchard discloses particles with a d_{50} of 2.5 nm, and is silent with regard to d_{80} or d_{90} .

Accordingly, because the references as applied fail to disclose the features of the claim, Applicants respectfully submit that claim 25 is patentable.

Separate Patentability of Claim 35

The additive of new claim 35 recites depends from claim 30 and recites 1% to 32% by weight of the rare earth oxide and element E, with respect to the total weight of the dispersion. In contrast, Wakefield discloses cerium oxide of about 4 ppm, or less desirably 40 ppm. Wakefield, ¶[0039]. One of ordinary skill in the art would have no reason to combine the cited documents and further modify them to produce a dispersion comprising, *inter alia*, an antioxidant and 1% to 32% by weight of the rare earth oxide and element E.

Conclusion

Applicants submit that this application is in condition for immediate allowance, and an early notification to that effect is respectfully requested. If the Examiner has any questions about this application, or believes that any issues remain to be resolved, the Examiner is respectfully requested to contact the undersigned to arrange for a personal or telephonic interview to resolve these issues prior to the issuance of another Office action.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: April 5, 2010

By: _____



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